RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _____ 10/750, 262 A

Source: _____ TFW16

Date Processed by STIC: _____ 03/23/2006

ENTERED

RAW SEQUENCE LISTING   DATE: 03/23/2006
PATENT APPLICATION: US/10/750,262A   TIME: 15:22:29

Input Set : A:\PTO.TS.14.txt
Output Set: N:\CRF4\03232006\J750262A.raw

```
 4 <110> APPLICANT: AFAR, DANIEL E.
 5        HUBERT, RENE S.
 6        LEONG, KAHAN
 7        RAITANO, ARTHUR B.
 8        SAFFRAN, DOUGLAS C.
 9        MITCHELL, STEPHEN CHAPPELL
11 <120> TITLE OF INVENTION: SERPENTINE TRANSMEMBRANE ANTIGENS EXPRESSED IN HUMAN
12        CANCERS AND USES THEREOF
14 <130> FILE REFERENCE: 39766-0160D2
16 <140> CURRENT APPLICATION NUMBER: US 10/750,262A
17 <141> CURRENT FILING DATE: 2003-12-31
19 <150> PRIOR APPLICATION NUMBER: US 10/011,095
20 <151> PRIOR FILING DATE: 2001-12-06
22 <150> PRIOR APPLICATION NUMBER: US 09/323,873
23 <151> PRIOR FILING DATE: 1999-06-01
25 <150> PRIOR APPLICATION NUMBER: US 60/087,520
26 <151> PRIOR FILING DATE: 1998-06-01
28 <150> PRIOR APPLICATION NUMBER: US 60/091,183
29 <151> PRIOR FILING DATE: 1998-06-30
31 <160> NUMBER OF SEQ ID NOS: 37
33 <170> SOFTWARE: FastSEQ for Windows Version 4.0
35 <210> SEQ ID NO: 1
36 <211> LENGTH: 1195
37 <212> TYPE: DNA
38 <213> ORGANISM: Homo sapiens
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42 aattaatgga aagcagaaaa gacatcacaa accaagaaga actttggaaa atgaagccta     120
43 ggagaaattt agaagaagac gattatttgc ataaggacac gggagagacc agcatgctaa     180
44 aaagacctgt gcttttgcat ttgcaccaaa cagcccatgc tgatgaattt gactgccctt     240
45 cagaacttca gcacacacag gaactctttc cacagtggca cttgccaatt aaaatagctg     300
46 ctattatagc atctctgact tttctttaca ctcttctgag ggaagtaatt cacccttag     360
47 caacttccca tcaacaatat ttttataaaa ttccaatcct ggtcatcaac aaagtcttgc     420
48 caatggtttc catcactctc ttggcattgg tttacctgcc aggtgtgata gcagcaattg     480
49 tccaacttca taatggaacc aagtataaga agtttccaca ttggttggat aagtggatgt     540
50 taacaagaaa gcagtttggg cttctcagtt tctttttgc tgtactgcat gcaatttata     600
51 gtctgtctta cccaatgagg cgatcctaca gatacaagtt gctaaactgg gcatatcaac     660
52 aggtccaaca aaataaagaa gatgcctgga ttgagcatga tgtttggaga atggagattt     720
53 atgtgtctct gggaattgtg ggattggcaa tactggctct gttggctgtg acatctattc     780
54 catctgtgag tgactctttg acatggagag aatttcacta tattcagagc aagctaggaa     840
55 ttgtttccct tctactgggc acaatacacg cattgatttt tgcctggaat aagtggatag     900
56 atataaaaca atttgtatgg tatacacctc caactttat gatagctgtt ttccttccaa     960
57 ttgttgtcct gatatttaaa agcatactat tcctgccatg cttgaggaag aagatactga    1020
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58 agattagaca tggttgggaa gacgtcacca aaattaacaa aactgagata tgttcccagt      1080
59 tgtagaatta ctgtttacac acatttttgt tcaatattga tatattttat caccaacatt      1140
60 tcaagtttgt atttgttaat aaaatgatta ttcaaggaaa aaaaaaaaaa aaaaa           1195
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63 <211> LENGTH: 339
64 <212> TYPE: PRT
65 <213> ORGANISM: Homo sapiens
67 <400> SEQUENCE: 2
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70 Lys Pro Arg Arg Asn Leu Glu Glu Asp Asp Tyr Leu His Lys Asp Thr
71              20                  25                  30
72 Gly Glu Thr Ser Met Leu Lys Arg Pro Val Leu Leu His Leu His Gln
73          35                  40                  45
74 Thr Ala His Ala Asp Glu Phe Asp Cys Pro Ser Glu Leu Gln His Thr
75      50                  55                  60
76 Gln Glu Leu Phe Pro Gln Trp His Leu Pro Ile Lys Ile Ala Ala Ile
77 65                  70                  75                  80
78 Ile Ala Ser Leu Thr Phe Leu Tyr Thr Leu Leu Arg Glu Val Ile His
79                  85                  90                  95
80 Pro Leu Ala Thr Ser His Gln Gln Tyr Phe Tyr Lys Ile Pro Ile Leu
81                  100                 105                 110
82 Val Ile Asn Lys Val Leu Pro Met Val Ser Ile Thr Leu Leu Ala Leu
83          115                 120                 125
84 Val Tyr Leu Pro Gly Val Ile Ala Ala Ile Val Gln Leu His Asn Gly
85      130                 135                 140
86 Thr Lys Tyr Lys Lys Phe Pro His Trp Leu Asp Lys Trp Met Leu Thr
87 145                 150                 155                 160
88 Arg Lys Gln Phe Gly Leu Leu Ser Phe Phe Phe Ala Val Leu His Ala
89                  165                 170                 175
90 Ile Tyr Ser Leu Ser Tyr Pro Met Arg Arg Ser Tyr Arg Tyr Lys Leu
91                  180                 185                 190
92 Leu Asn Trp Ala Tyr Gln Gln Val Gln Gln Asn Lys Glu Asp Ala Trp
93          195                 200                 205
94 Ile Glu His Asp Val Trp Arg Met Glu Ile Tyr Val Ser Leu Gly Ile
95      210                 215                 220
96 Val Gly Leu Ala Ile Leu Ala Leu Leu Ala Val Thr Ser Ile Pro Ser
97 225                 230                 235                 240
98 Val Ser Asp Ser Leu Thr Trp Arg Glu Phe His Tyr Ile Gln Ser Lys
99                  245                 250                 255
100 Leu Gly Ile Val Ser Leu Leu Leu Gly Thr Ile His Ala Leu Ile Phe
101                 260                 265                 270
102 Ala Trp Asn Lys Trp Ile Asp Ile Lys Gln Phe Val Trp Tyr Thr Pro
103          275                 280                 285
104 Pro Thr Phe Met Ile Ala Val Phe Leu Pro Ile Val Val Leu Ile Phe
105      290                 295                 300
106 Lys Ser Ile Leu Phe Leu Pro Cys Leu Arg Lys Lys Ile Leu Lys Ile
107 305                 310                 315                 320
108 Arg His Gly Trp Glu Asp Val Thr Lys Ile Asn Lys Thr Glu Ile Cys
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                    RAW SEQUENCE LISTING              DATE: 03/23/2006
                    PATENT APPLICATION:  US/10/750,262A   TIME: 15:22:29

                    Input Set : A:\PTO.TS.14.txt
                    Output Set: N:\CRF4\03232006\J750262A.raw

109                 325               330               335
110 Ser Gln Leu
113 <210> SEQ ID NO: 3
114 <211> LENGTH: 111
115 <212> TYPE: DNA
116 <213> ORGANISM: Homo sapiens
118 <400> SEQUENCE: 3
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120 attgaacatt ccagatacct atcattactc gatgctgttg ataacagcaa g.             111
122 <210> SEQ ID NO: 4
123 <211> LENGTH: 24
124 <212> TYPE: DNA
125 <213> ORGANISM: Artificial Sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: Primer
130 <400> SEQUENCE: 4
131 actttgttga tgaccaggat tgga                                            24
133 <210> SEQ ID NO: 5
134 <211> LENGTH: 24
135 <212> TYPE: DNA
136 <213> ORGANISM: Artificial Sequence
138 <220> FEATURE:
139 <223> OTHER INFORMATION: Primer
141 <400> SEQUENCE: 5
142 cagaacttca gcacacacag gaac                                            24
144 <210> SEQ ID NO: 6
145 <211> LENGTH: 3627
146 <212> TYPE: DNA
147 <213> ORGANISM: Homo sapiens
149 <400> SEQUENCE: 6
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151 gtgggtggct gaagccatac tatttatag aattaatgga aagcagaaaa gacatcacaa      120
152 accaagaaga actttggaaa atgaagccta ggagaaattt agaagaagac gattatttgc      180
153 ataaggacac gggagagacc agcatgctaa aaagacctgt gcttttgcat ttgcaccaaa      240
154 cagcccatgc tgatgaattt gactgcccctt cagaacttca gcacacacag gaactctttc      300
155 cacagtggca cttgccaatt aaaatagctg ctattatagc atctctgact tttctttaca      360
156 ctcttctgag ggaagtaatt caccccttag caacttccca tcaacaatat ttttataaaa      420
157 ttccaatcct ggtcatcaac aaagtcttgc caatggtttc catcactctc ttggcattgg      480
158 tttacctgcc aggtgtgata gcagcaattg tccaacttca taatggaacc aagtataaga      540
159 agtttccaca ttggttggat aagtggatgt taacaagaaa gcagtttggg cttctcagtt      600
160 tctttttgc tgtactgcat gcaatttata gtctgtctta cccaatgagg cgatcctaca      660
161 gatacaagtt gctaaactgg gcatatcaac aggtccaaca aaataaagaa gatgcctgga      720
162 ttgagcatga tgtttggaga atggagattt atgtgtctct gggaattgtg ggattggcaa      780
163 tactggctct gttggctgtg acatctattc catctgtgag tgactctttg acatggagag      840
164 aatttcacta tattcaggta aataatatat aaaataaccc taagaggtaa atcttctttt      900
165 tgtgtttatg atatagaata tgttgacttt accccataaa aaataacaaa tgtttttcaa      960
166 cagcaaagat cttatacttg ttccaattaa taatgtgctc tcctgttgtt ttccctattg      1020
167 cttctaatta ggacaagtgt ttcctagaca taaataaaag gcattaaaat attctttgtt      1080
168 tttttttttt tgtttgtttg tttttgttt gtttgtttgt tttttgaga tgaagtctcg       1140
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169 ctctgttgcc catgctggag tacagtggca cgatctcggc tcactgcaac ctgcgcctcc   1200
170 tgggttcagg cgattctctt gcctcagcct cctgagtagc tgggattaca ggcacccatc   1260
171 accatgtcca gctaattttt gtattttttag tagagacagg gttttcccat gttggccagg   1320
172 ctggtctcga tctcctgacc tcaaatgatc cgcccacctc ggcctcccaa agtgctggga   1380
173 tgacagttgt gagccaccac actcagcctg ctctttctaa tatttgaaac ttgttagaca   1440
174 atttgctacc catctaatgt gatatttttag gaatccaata tgcatggttt attatttctt   1500
175 aaaaaaaata ttcttttacc tgtcacctga atttagtaat gcctttatg ttacacaact   1560
176 tagcactttc cagaaacaaa aactctctcc ttgaaataat agagttttta tctaccaaag   1620
177 atatgctagt gtctcatttc aaaggctgct tttttccagct tacattttat atacttactc   1680
178 acttgaagtt tctaaatatt cttgtaattt taaaactatc tcagatttac tgaggtttat   1740
179 cttctggtgg tagattatcc ataagaagag tgatgtgcca gaatcactct gggatccttg   1800
180 tctgacaaga ttcaaaggac taaatttaat tcagtcatga acactgccaa ttaccgttta   1860
181 tgggtagaca tctttggaaa tttccacaag gtcagacatt cgcaactatc ccttctacat   1920
182 gtccacacgt atactccaac actttattag gcatctgatt agtttggaaa gtatgcctcc   1980
183 atctgaatta gtccagtgtg gcttagagtt ggtacaacat tctcacagaa tttcctaatt   2040
184 ttgtaggttc agcctgataa ccactggagt tctttggtcc tcattaaata gctttcttca   2100
185 cacattgctc tgcctgttac acatatgatg aacactgctt tttagacttc attaggaatt   2160
186 taggactgca tcttgacaac tgagcctatt ctactatatg tacaatacct agcccataat   2220
187 aggtatacaa tacacatttg gtaaaactaa ttttcaacca atgacatgta ttttttcaact   2280
188 agtaacctag aaatgtttca cttaaaatct gagaactggt tacactacaa gttaccttgg   2340
189 agattcatat atgaaaacgc aaacttagct atttgattgt attcactggg acttaagaat   2400
190 gcgcctgaat aattgtgagt tcgatttgtt ctggcaggct aatgaccatt tccagtaaag   2460
191 tgaatagagg tcagaagtcg tataaaagag gtgttgtcag aacaccgttg agattacata   2520
192 ggtgaacaac tatttttaag caactttatt tgtgtagtga caaagcatcc caatgcaggc   2580
193 tgaaatgttt catcacatct ctggatctct ctattttgtg cagacattga aaaaattgtt   2640
194 catattattt ccatgttatc agaatatttg attttttaaa aacataggcc aagttcattc   2700
195 acttcattat tcatttatca aaatcagagt gaatcacatt agtcgccttc acaactgata   2760
196 aagatcactg aagtcaaatt gattttgct ataatcttca atctacctat atttaattga   2820
197 gaatctaaaa tgtacaaatc attgtgttga ttctgcagtg atcctgctat aagtaagact   2880
198 cagtccctga ttttaggtat cctgtgaaaa gcagaattaa gacaaataca caagagacaa   2940
199 agcacaaaaa ataaatatca taaggggatg aacaaaatgg tggagaaaga gtagacaaag   3000
200 tttttgatca cctgccttca aagaaaggct gtgaattttg ttcacttaga cagcttggag   3060
201 acaagaaatt acccaaaagt aaggtgagga ggataggcaa aaagagcaga aagatgtgaa   3120
202 tggacattgt tgagaaatgt gataggaaaa caatcataga taaaggattt ccaagcaaca   3180
203 gagcatatcc agatgaggta ggatgggata aactcttatt gaaccaatct tcaccaattt   3240
204 tgttttttctt ttgcagagca agctaggaat tgtttccctt ctactgggca caatacacgc   3300
205 attgattttt gcctggaata agtggataga tataaaacaa tttgtatggt atacacctcc   3360
206 aacttttatg atagctgttt tccttccaat tgttgtcctg atatttaaaa gcatactatt   3420
207 cctgccatgc ttgaggaaga agatactgaa gattagacat ggttgggaag acgtcaccaa   3480
208 aattaacaaa actgagatat gttcccagtt gtagaattac tgtttacaca cattttgtt   3540
209 caatattgat atatttttatc accaacattt caagtttgta tttgttaata aaatgattat   3600
210 tcaaggaaaa aaaaaaaaaa aaaaaaa                                         3627
212 <210> SEQ ID NO: 7
213 <211> LENGTH: 519
214 <212> TYPE: DNA
215 <213> ORGANISM: Homo sapiens
217 <400> SEQUENCE: 7
218 gacttttaca aaattcctat agagattgtg aataaaacct tacctatagt tgccattact     60
219 ttgctctccc tagtatacct cgcaggtctt ctggcagctg cttatcaact ttattacggc    120
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Input Set : A:\PTO.TS.14.txt
Output Set: N:\CRF4\03232006\J750262A.raw

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220 accaagtata ggagatttcc accttggttg gaaacctggt tacagtgtag aaaacagctt      180
221 ggattactaa gttttttctt cgctatggtc catgttgcct acagcctctg cttaccgatg      240
222 agaaggtcag agagatattt gtttctcaac atggcttatc agcaggttca tgcaaatatt      300
223 gaaaactctt ggaatgagga agaagtttgg agaattgaaa tgtatatctc ctttggcata      360
224 atgagccttg gcttactttc cctcctggca gtcacttcta tcccttcagt gagcaatgct      420
225 ttaaactgga gagaattcag ttttattcag tctacacttg gatatgtcgc tctgctcata      480
226 agtactttcc atgtttttaat ttatggatgg aaacgagct                            519
228 <210> SEQ ID NO: 8
229 <211> LENGTH: 173
230 <212> TYPE: PRT
231 <213> ORGANISM: Homo sapiens
233 <400> SEQUENCE: 8
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236 Val Ala Ile Thr Leu Leu Ser Leu Val Tyr Leu Ala Gly Leu Leu Ala
237             20·                  25                  30
238 Ala Ala Tyr Gln Leu Tyr Tyr Gly Thr Lys Tyr Arg Arg Phe Pro Pro
239         35                  40                  45
240 Trp Leu Glu Thr Trp Leu Gln Cys Arg Lys Gln Leu Gly Leu Leu Ser
241     50                  55                  60
242 Phe Phe Phe Ala Met Val His Val Ala Tyr Ser Leu Cys Leu Pro Met
243 65                  70                  75                  80
244 Arg Arg Ser Glu Arg Tyr Leu Phe Leu Asn Met Ala Tyr Gln Gln Val
245             85                  90                  95
246 His Ala Asn Ile Glu Asn Ser Trp Asn Glu Glu Glu Val Trp Arg Ile
247             100                 105                 110
248 Glu Met Tyr Ile Ser Phe Gly Ile Met Ser Leu Gly Leu Leu Ser Leu
249         115                 120                 125
250 Leu Ala Val Thr Ser Ile Pro Ser Val Ser Asn Ala Leu Asn Trp Arg
251     130                 135                 140
252 Glu Phe Ser Phe Ile Gln Ser Thr Leu Gly Tyr Val Ala Leu Leu Ile
253 145                 150                 155                 160
254 Ser Thr Phe His Val Leu Ile Tyr Gly Trp Lys Arg Ala
255                 165                 170
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258 <211> LENGTH: 322
259 <212> TYPE: DNA
260 <213> ORGANISM: Homo sapiens
262 <400> SEQUENCE: 9
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264 cagagtgact tttacaaaat tcctatagag attgtgaata aaaccttacc tatagttgcc      120
265 attactttgc tctccctagt ataccttgca ggtcttctgg cagctgctta tcaactttat      180
266 tacggcacca agtataggag atttccacct tggttggaaa cctggttaca gtgtagaaaa      240
267 cagcttggat tactaagttg tttcttcgct atggtccatg ttgcctacag cctctgctta      300
268 ccgatgagaa ggtcagagag at                                               322
270 <210> SEQ ID NO: 10
271 <211> LENGTH: 183
272 <212> TYPE: DNA
273 <213> ORGANISM: Homo sapiens
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 03/23/2006
PATENT APPLICATION: US/10/750,262A   TIME: 15:22:30

Input Set : **A:\PTO.TS.14.txt**
Output Set: **N:\CRF4\03232006\J750262A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:12; N Pos. 11,56,233,250,310,326,377,398
Seq#:34; Xaa Pos. 15,74,105,122

VERIFICATION SUMMARY   DATE: 03/23/2006
PATENT APPLICATION: US/10/750,262A   TIME: 15:22:30

Input Set : **A:\PTO.TS.14.txt**
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L:307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
M:341 Repeated in SeqNo=12
L:578 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
M:341 Repeated in SeqNo=34